U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-260 229

RADIUM MONITORING NETWORK

DATA RELEASE NUMBER 14

PUBLIC HEALTH SERVICE, DENVER, COLORADO

JANUARY 1969

257053

PB 260 229

RADIUM MONITORING NETWORK

DATA RELEASE NO. 14

U. S. DEPARTMENT OF THE INTERIOR
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION
COLORADO RIVER BASIN WATER QUALITY CONTROL PROJECT
DENVER, COLORADO

JANUARY 1969

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

BIBLIOGRAPHIC DATA SHEET	1. Report No.	2.	3. Recipient's Accession No. PB-260 229
4. Title and Subtitle: Radium Monitoring Network. Data Release Number 14.			5. Report Date
			6.
7. Author(s)			8. Performing Organization Rept. No.
9. Performing Organization Name and Address: Public Health Service, Denver, Colo. Div. of Water Supply and Pollution Control.			10. Project/Task/Work Unit No.
			11. Contract/Grant No.
12. Sponsoring Organization Name and Address			13. Type of Report & Period Covered
			14.

15. Supplementary Notes
Report on Colorado River Basin Water Quality Control Project.

16. Abstracts
This fourteenth data release report provides radium-226 and uranium results that supplement data from 13 previous reports dated October 1962 through July 1968. The tabular data indicate evidence of uranium mining and milling from analysis of composite water samples at stations of the Radium Monitoring Network of the Colorado River Basin Water Quality Control Project. The network is a surveillance system consisting of continuous surface water sampling at 27 locations throughout the basin. It assays the radiological content of river water over the entire basin.

17. Key Words and Document Analysis. 17a. Descriptors

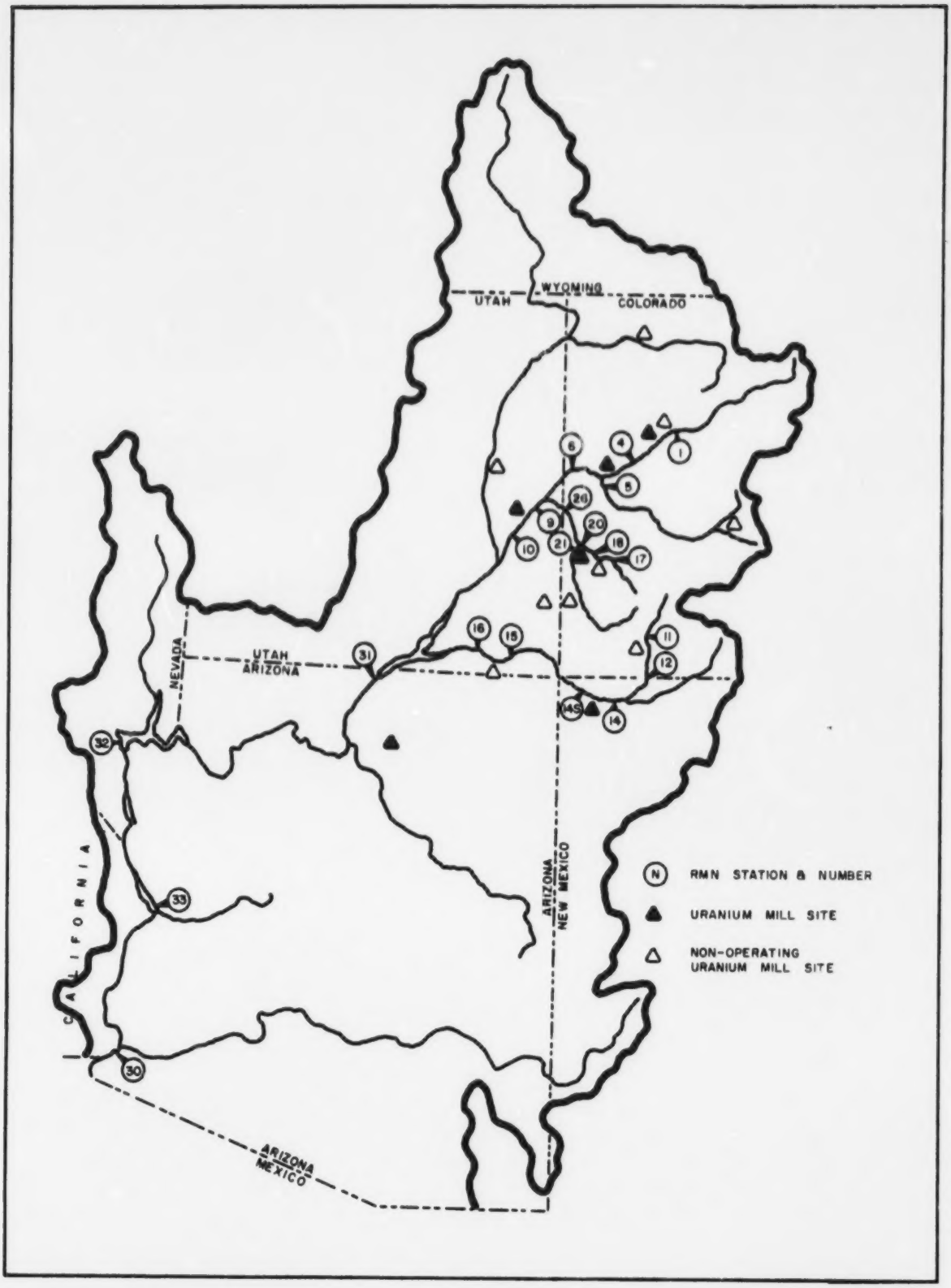
17b. Identifiers/Open-Ended Terms

Colorado River
Dolores River
River basins
*Radium
Drinking water
*Radiation hazards
Water supply
Rivers
*Water quality data
Water pollution sampling
State agencies
Surface waters
Tables(Data)
*Uranium
Mining
Radioactive wastes
Industrial wastes
Fallout

17c. COSATI Field/Group 13B

18. Availability Statement	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 31
	20. Security Class (This Page) UNCLASSIFIED	22. Price

FORM NTIS-35 (REV. 10-73) ENDORSED BY ANSI AND UNESCO. THIS FORM MAY BE REPRODUCED USCOMM-DC 8265-P74



GPO 851-409

COLORADO RIVER BASIN RADIUM MONITORING NETWORK

COLORADO RIVER BASIN WATER QUALITY CONTROL PROJECT

RADIUM MONITORING NETWORK DATA RELEASE NO. 14

INTRODUCTION

This is the fourteenth release of data collected through the Radium Monitoring Network, which is maintained by the Colorado River Basin Water Quality Control Project, Federal Water Pollution Control Administration. The purpose of this release is to supplement data given in the thirteen previous releases dated October 1962 through July 1968.

Summary reports of Radium Monitoring Network data collected through December 1967 were published in the November 1964, November 1965, May 1968, and December 1968 issues of Radiological Health Data. The November 1964 issue also gives data on sediments collected through March 1964 and on some waters and sediments collected prior to the establishment of the Radium Monitoring Network.

The Radium Monitoring Network is a surface water surveillance system consisting currently of twenty sampling stations located on various streams and reservoirs throughout the Colorado River Basin. During initial stages of the surveillance program, the system consisted of twenty-seven sampling stations. The purpose of the network is to provide continuous monitoring of radioactivity concentrations of Basin surface water so that the contribution from uranium mining and milling industry waste discharges can be determined. Samples are analyzed for radium-226, uranium, gross alpha, gross beta, thorium (alpha), lead-210, polonium-210, and strontium-90 to provide a comprehensive picture of contributions of radiological contaminants to surface waters of the Colorado River Basin by the uranium industry and by fallout from the testing of nuclear devices.

SAMPLING PROCEDURES

Depending upon circumstances prevailing at individual stations, Radium Monitoring Network (RMN) samples are collected as either automatic or grab samples. Grab samples are collected once or three times per week and automatic samples are collected in 21-ml. portions every hour. The samples are sent as collected to the Colorado River Basin Water Quality Control Project Laboratory where they are composited and filtered through 0.45-micron membrane filters as soon as possible after the samples for the compositing period are received. After filtration, samples are acidified with 2% by volume of 12N HCl and radiochemical determinations are then performed on the filtered water.

SIGNIFICANT FIGURES

After a careful consideration of the accuracies and precisions involved in the various analytical procedures, it was decided to report data to two significant figures except in those instances where the lower

limit of detection was being approached. In the latter instances, only one significant figure is reported. The last significant figure is usually an estimate.

In averages, three figures are retained if the precision and significance of the averaged data justify such retention. Thus, the overall averages for radium-226 at stations 11 and 26 are reported, respectively, as 0.05 and 1.16 picograms per liter (Table 1).

RESULTS

The Appendix contains the data on dissolved radium-226 and uranium in samples collected since the thirteenth data release along with averages for this reporting period and for the previous year. A summary of all data on radium-226 and uranium is given in Table 1. Mean annual concentrations of radium-226 for each station are given in Table 2. Gross alpha, gross beta, lead-210, polonium-210, thorium (alpha), and strontium-90 data on samples collected through March 1967 were reported in Data Releases Nos. 7, 8, 10, 11, and 12.

Radium-226 and uranium concentrations at most stations continue to average well below recommended maximum concentrations. As compared with results from the previous reporting period, all stations show either noticeably lower concentrations or insignificant increased concentrations of both radium-226 and uranium. At locations where pollution exists, concentrations of radium-226 and uranium are generally about half of those for the previous reporting period. More detailed discussions of five stations are warranted.

Radium-226 concentrations in the San Miguel River below Uravan, Colorado, for this reporting period, averaged 1.90 picograms per liter as compared with 4.05 for the previous period, 2.28 for the previous year, and 1.38 for the long-term average. At Gateway, Colorado, radium-226 concentrations in the Dolores River averaged 1.02 picograms per liter as compared with 1.81 for the previous period, 1.43 for the previous year, and 1.16 for the long-term average. During this reporting period, uranium concentrations below Uravan averaged 10.4 micrograms per liter; at Gateway, the average was 12.2 micrograms per liter. Significant improvements in water quality, with respect to radium-226 and uranium, have occurred at both of these stations.

For this reporting period, the average radium-226 concentrations above and below Moab, Utah, were 0.27 and 0.50 picograms per liter, respectively, as compared with 0.28 and 0.91 for the previous reporting period, 0.28 and 0.69 for the previous year, and 0.26 and 0.47 for the long-term averages. Uranium concentrations at the upstream and downstream stations averaged, respectively, 6.6 and 8.0 micrograms per liter.

Reductions in both radium-226 and uranium concentrations are evident at the downstream station for the current reporting period as compared with the previous reporting period.

The radium-226 concentrations in Lake Mead for the current reporting period continued the recent downward trend and averaged 0.23 picograms per liter as compared with 0.27 for the previous period, 0.28 for the previous year, and 0.34 for the long-term average.

TABLE 1

RADIUM-226 AND URANIUM CONCENTRATIONS IN SURFACE WATERS OF THE COLORADO RIVER BASIN

Station Number and Location	Radium-226			Uranium		
	Av.[a] pg/l	Range pg/l	No. of Analyses	Av.[a] µg/l	Range µg/l	No. of Analyses
Animas River						
11 above Durango, Colorado	0.05	0.00-0.11	81	1.2	0.1-2.9	75
12 Colorado-New Mexico State Line	0.23	0.03-1.5	129	3.1	0.0-18	87
Colorado River						
1 at Silt, Colorado	0.19	0.04-0.39	86	3.1	0.0-4.4	72
4 at DeBeque, Colorado	0.19	0.05-0.44	87	3.5	0.4-7.2	72
6 at Fruita, Colorado	0.17	0.09-0.40	81	8.4	2.0-14	72
9 above Moab, Utah	0.26	0.10-0.52	114	9.6	2.4-31	101
10 below Moab, Utah	0.47	0.16-7.2	110	11	2.2-22	97
31 at Page, Arizona	0.19	0.04-0.36	59	6.7	2.8-13	60
32 Lake Mead	0.34	0.19-0.60	67	7.8	5.0-11	67
33 Lake Havasu	0.35	0.18-0.44	69	7.8	5.4-11	69
30 at Yuma, Arizona	0.17	0.06-0.33	76	7.6	2.0-11	71
Dolores River						
21 at Bedrock, Colorado	0.43	0.03-1.4	84	10	0.1-35	71
26 at Gateway, Colorado	1.16	0.04-3.8	122	15	0.1-51	100
Green River						
28 below Maybell, Colorado	0.09	0.03-0.15	36	2.7	0.6-8.0	32
29 below Green River, Utah	0.09	0.05-0.15	29	5.0	1.6-7.6	26

TABLE 1(Contd)

RADIUM-226 AND URANIUM CONCENTRATIONS IN SURFACE WATERS OF THE COLORADO RIVER BASIN

Station Number and Location	Radium-226 Av.[a] pg/l	Radium-226 Range pg/l	Radium-226 No. of Analyses	Uranium Av.[a] µg/l	Uranium Range µg/l	Uranium No. of Analyses
Gunnison River						
24 above Gunnison, Colorado	0.05	0.01-0.08	43	1.2	0.0-2.6	33
25 below Gunnison, Colorado	0.04	0.01-0.09	46	2.3	0.4-4.3	33
5 at Grand Junction, Colorado	0.09	0.01-0.30	81	10	0.7-19	72
San Juan River						
13 above Farmington, N. M.	0.07	0.03-0.16	20	2.8	0.0-8.3	19
14 below Farmington, N. M.	0.07	0.03-0.21	73	2.9	0.3-9.0	72
14S below Shiprock, N. M.	0.08	0.03-0.28	165	9.1	0.1-93	161
15 above Mexican Hat, Utah	0.11	0.04-0.66	76	6.0	1.0-23	63
16 below Mexican Hat, Utah	0.12	0.01-0.84	154	8.4	0.8-35	136
San Miguel River						
17 above Naturita, Colorado	0.04	0.00-0.14	100	2.1	0.0-6.9	72
18 above Uravan, Colorado	0.20	0.03-1.2	132	5.6	0.8-63	101
20 below Uravan, Colorado	1.38	0.06-25	337	22	0.0-150	308

a Average concentration obtained from all data presented in this and previous data releases.

TABLE 2

MEAN ANNUAL CONCENTRATIONS OF RADIUM-226
IN WATER AT MONITORING NETWORK STATIONS, 1961-1967

Values in Picograms per Liter

RMN Station No.	Location	Years						
		1961	1962	1963	1964	1965	1966	1967
1	Colorado River at Silt, Colorado	0.18	0.15	0.23	0.25	0.16	0.20	0.20
4	Colorado River above DeBeque, Colorado	0.20	0.16	0.23	0.22	0.17	0.18	0.19
5	Gunnison River above Grand Junction, Colo.	--	0.07	0.11	0.12	0.07	0.09	0.08
6	Colorado River near Fruita, Colorado	--	0.17	0.21	0.18	0.17	0.16	0.17
9	Colorado River above Moab, Utah	0.34	0.24	0.29	0.27	0.19	0.26	0.28
10	Colorado River below Moab, Utah	0.41	0.33	0.54	0.32	0.27	0.39	0.93
11	Animas River at Durango, Colorado	0.05	0.05	0.06	0.05	0.04	0.05	0.05
12	Animas River at Colo.-N. M. State Line	0.37	0.37	0.23	0.13	0.09	0.09	0.09
13	San Juan River above Farmington, N. M.	--	0.08	0.07	0.04	--	--	--
14	San Juan River at Fruitland, New Mexico	--	0.12	0.12	0.07	0.06	0.05	0.06
14S	San Juan River below Shiprock, N. M.	--	0.11	0.12	0.09	0.06	0.05	--
15	San Juan River above Mexican Hat, Utah	0.18	0.15	0.13	0.14	0.07	0.08	0.08
16	San Juan River below Mexican Hat, Utah	0.34	0.24	0.16	0.09	0.07	0.07	0.08
17	San Miguel River above Naturita, Colo.	0.02	0.04	0.04	0.05	0.05	0.05	0.04
18	San Miguel River above Uravan, Colorado	0.14	0.21	0.33	0.14	0.16	0.13	0.12
20	San Miguel River below Uravan, Colorado	0.98	0.84	1.34	0.86	0.46	1.92	1.57
21	Dolores River at Bedrock, Colorado	0.85	0.39	0.45	0.61	0.28	0.33	0.50
22	Tomichi Creek above Gunnison, Colorado	0.02	--	--	--	--	--	--
24	Gunnison River above Gunnison, Colorado	0.03	0.05	0.05	0.05	0.04	--	--
25	Gunnison River below confluence of Tomichi Creek, Gunnison, Colorado	0.04	0.04	0.05	0.04	0.03	--	--
26	Dolores River at Gateway, Colorado	0.42	1.38	1.03	1.13	0.67	1.20	1.22
28	Yampa River below Maybell, Colorado	0.11	0.09	0.09	0.09	0.06	--	--
29	Green River below Green River City, Utah	--	0.06	0.10	0.09	--	--	--
30	Colorado River at U. S.-Mexican Border	--	0.15	0.17	0.18	0.16	0.16	0.17
31	Colorado River at Page, Arizona	--	--	0.25	0.25	0.17	0.15	0.14
32	Colorado River at (Lake Mead) Boulder City, Nevada	--	--	0.33	0.31	0.41	0.41	0.32
33	Colorado River at Metropolitan Water District Intake, Lake Havasu, Cal.-Ariz.	--	--	0.35	0.36	0.36	0.39	0.34

A P P E N D I X

Results of Radium-226 and Uranium Analyses of Samples
from Individual Radium Monitoring Network Stations
for Current Reporting Period

RMN Station 1: Colorado River at Silt, Colorado
Started: November 25, 1961
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 2-March 23	0.27	3.3
March 30-April 27	0.22	2.7
April 27-June 1	0.08	0.8
June 1-June 29	0.05	1.9
July 1-July 29	0.13	2.7
August 5-August 19	0.10	1.6
September 3-September 16	0.22	3.7
Current reporting period:		
Mean	0.15	2.4
Previous year:		
Mean	0.19	2.8
Std. Dev.	0.07	0.1

RMN Station 4: Colorado River above DeBeque, Colorado
Started: November 21, 1961
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 2-March 23	0.22	4.7
March 30-April 27	0.19	3.7
April 27-June 1	0.12	1.5
June 1-June 28	0.06	2.5
July 1-July 29	0.12	2.9
August 5-August 19	0.12	1.7
September 3-September 16	0.19	3.7
Current reporting period:		
Mean	0.15	3.0
Previous year:		
Mean	0.19	4.1
Std. Dev.	0.05	1.7

RMN Station 5: Gunnison River above Grand Junction, Colorado
Started: April 16, 1962
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	0.04	11
April 1-April 26	0.05	6.8
April 29-May 31	0.05	3.4
June 3-June 28	0.04	5.1
July 3-July 31	0.16	14
August 7-August 21	0.17	10
September 5-September 18	0.09	15
Current reporting period:		
Mean	0.09	9.3
Previous year:		
Mean	0.08	9.4
Std. Dev.	0.03	3.6

RMN Station 6: Colorado River at Fruita, Colorado
Started: April 16, 1962
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	0.16	7.9
April 1-April 26	0.15	6.6
April 29-May 31	0.22	4.3
June 3-June 28	0.09	3.9
July 3-July 31	0.13	7.2
August 7-August 21	0.16	5.8
September 5-September 18	0.13	11
Current reporting period:		
Mean	0.15	6.7
Previous year:		
Mean	0.17	8.2
Std. Dev.	0.05	2.8

RMN Station 9: Colorado River above Moab, Utah
Started: December 11, 1961
Type: Three grab samples per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	0.24	10
April 1-April 26	0.43	8.8
April 29-May 31	0.21	4.9
June 3-June 28	0.20	2.0
July 1-August 2	0.26	6.0
August 5-August 30	0.28	8.0
Current reporting period:		
Mean	0.27	6.6
Previous year:		
Mean	0.28	9.3
Std. Dev.	0.10	2.9

RMN Station 10: Colorado River below Moab, Utah
Started: December 11, 1961
Type: Three grab samples per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	1.3	12
April 1-April 26	0.42	11
April 29-May 31	0.38	6.0
June 3-June 28	0.37	2.2
July 1-August 2	0.30	8.8
August 5-August 30	0.25	8.2
Current reporting period:		
Mean	0.50	8.0
Previous year:		
Mean	0.69	11.3
Std. Dev.	0.33	4.2

RMN Station 11: Animas River at Durango, Colorado
Started: July 17, 1961
Type: One grab sample per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
April	0.04	1.1
May 10-May 17	0.07	1.4
June 7-June 21	0.03	0.3
July 5-August 2	0.06	1.5
August 9-August 30	0.05	0.6
September 6-September 27	0.03	2.0
Current reporting period:		
Mean	0.05	1.2
Previous year:		
Mean	0.05	1.4
Std. Dev.	0.01	0.5

RMN Station 12: Animas River at Colorado-New Mexico State Line
Started: January 19, 1961
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
February 8-March 2	0.07	2.6
March 6-March 30	0.10	2.4
April 2-April 26	0.05	1.8
April 30-May 31	0.06	1.2
June 3-June 29	0.06	0.8
Current reporting period:		
Mean	0.07	1.8
Previous year:		
Mean	0.09	2.4
Std. Dev.	0.02	0.8

RMN Station 14: San Juan River at Fruitland, New Mexico
Started: August 1, 1962
Type: One grab sample per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
April 1-April 22	0.07	1.7
April 29-May 27	0.05	1.4
June 3-June 24	0.07	0.8
July 3-August 1	0.08	2.9
August 13-August 27	0.05	2.3
Current reporting period:		
Mean	0.06	1.8
Previous year:		
Mean	0.07	3.6
Std. Dev.	0.02	0.8

RMN Station 15: San Juan River above Mexican Hat, Utah
Started: December 11, 1961
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	0.08	6.9
March 31-April 26	0.07	4.3
April 28-May 31	0.15	2.4
June 2-June 28	0.05	1.0
Current reporting period:		
Mean	0.09	3.7
Previous year:		
Mean	0.09	6.0
Std. Dev.	0.02	1.4

RMN Station 16: San Juan River below Mexican Hat, Utah
Started: December 11, 1961
Type: Three grab samples per week (Prior to 7/1/68)
One grab sample per week (after 7/1/68)

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	0.06	6.3
March 31-April 26	0.06	5.0
April 28-May 31	0.10	2.8
June 2-June 28	0.06	1.2
Current reporting period:		
Mean	0.07	3.8
Previous year:		
Mean	0.08	6.4
Std. Dev.	0.02	1.5

RMN Station 17: San Miguel River above Naturita, Colorado
Started: October 28, 1961
Type: One grab sample per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 31-April 21	0.05	1.6
April 28-May 26	0.04	1.6
June 2-June 23	0.02	0.8
June 30-July 28	0.04	0.7
August 4-August 25	0.03	0.6
September 1-September 22	0.06	6.9
Current reporting period:		
Mean	0.04	2.0
Previous year:		
Mean	0.04	3.0
Std. Dev.	0.01	1.0

RMN Station 18: San Miguel River above Uravan, Colorado
Started: October 27, 1961
Type: Automatic Pump-Timer

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 3-March 31	0.11	4.4
March 31-April 28	0.16	3.4
April 28-June 2	0.09	1.4
June 2-June 30	0.11	0.9
June 30-August 4	0.11	1.5
August 4-September 1	0.10	1.5
Current reporting period:		
Mean	0.11	2.2
Previous year:		
Mean	0.12	4.1
Std. Dev.	0.05	1.0

RMN Station 20: San Miguel River below Uravan, Colorado
Started: October 9, 1961
Type: Automatic Pump-Timer

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 3-March 10	2.4	13
March 10-March 17	13	12
March 17-March 24	5.5	3.5
March 24-March 31	2.5	12
March 31-April 7	2.2	13
April 7- April 14	3.2	16
April 14-April 21	1.4	1.7
April 21-April 28	1.9	1.6
April 28-May 5	1.1	7.2
May 5-May 12	0.40	0.8
May 12-May 19	0.36	1.4
May 19-May 26	0.73	2.0
May 26-June 2	0.38	5.4
June 2-June 9	0.63	0.8
June 9-June 16	0.36	1.0
June 16-June 23	0.74	1.1
June 23-June 30	2.03	1.0
June 30-July 7	2.0	3.3
July 7-July 14	1.0	2.2
July 14-July 21	0.60	3.0
July 21-July 28	0.30	35
July 28-August 4	0.13	8.7
August 4-August 11	0.70	64
August 11-August 18	0.69	36
August 18-August 25	0.72	4.1
August 25-September 1	4.3	21
Current reporting period:		
Mean	1.90	10.4
Previous year:		
Mean	2.28	18
Std. Dev.	3.3	18

RMN Station 21: Dolores River at Bedrock, Colorado
Started: October 30, 1961
Type: Three grab samples per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 4-March 29	0.39	8.5
April 1-April 26	0.16	3.8
April 29-May 31	0.14	1.6
June 3-June 28	0.11	0.8
July 1-August 2	0.23	6.2
August 5-August 30	0.38	3.9
Current reporting period:		
Mean	0.24	4.1
Previous year:		
Mean	0.48	9.1
Std. Dev.	0.28	4.1

RMN Station 26: Dolores River at Gateway, Colorado
Started: October 30, 1961
Type: Three grab samples per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March 5-March 30	2.9	23
April 1-April 27	0.78	15
April 29-May 31	0.21	5.7
June 4-June 29	0.43	6.0
July 1-August 2	0.86	8.2
August 5-August 30	0.92	15
Current reporting period:		
Mean	1.02	12.2
Previous year:		
Mean	1.43	21
Std. Dev.	0.90	10

RMN Station 30: Colorado River at U. S.-Mexican Border
Started: July 30, 1962
Type: One grab sample per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
April 1-April 26	0.20	7.9
April 29-May 29	0.10	6.4
June 7-June 28	0.13	7.7
July 2-August 2	0.18	7.6
August 5-August 30	0.22	5.7
Current reporting period:		
Mean	0.17	7.1
Previous year:		
Mean	0.16	6.6
Std. Dev.	0.04	0.8

RMN Station 31: Colorado River at Page, Arizona
Started: May 1, 1963
Type: 300-ml. composite per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
March	0.15	7.4
April	0.20	7.0
April 29-May 27	0.17	7.9
June 3-June 24	0.16	8.3
July 1-July 29	0.15	6.1
August 5-August 26	0.23	3.7
September 3-September 23	0.18	5.6
Current reporting period:		
Mean	0.18	6.6
Previous year:		
Mean	0.15	6.0
Std. Dev.	0.05	0.9

RMN Station 32: Colorado River at (Lake Mead) Boulder City, Nevada
Started: March 11, 1963
Type: One grab sample per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
April 1-April 22	0.25	7.2
April 29-May 27	0.19	6.5
June 3-June 24	0.20	7.1
July 1-July 29	0.23	6.1
August 5-August 26	0.26	5.5
September 3-September 22	0.25	7.5
Current reporting period:		
Mean	0.23	6.7
Previous year:		
Mean	0.28	7.0
Std. Dev.	0.04	0.4

RMN Station 33: Colorado River at Metropolitan Water District Intake, Lake Havasu, California-Arizona
Started: January 7, 1963
Type: One grab sample per week

Date	Radium-226 pg/liter	Uranium µg/liter
1968		
April	0.26	7.0
May	0.26	7.2
June	0.18	7.4
July	0.25	5.7
August	0.24	5.8
September	0.30	7.2
Current reporting period:		
Mean	0.25	6.7
Previous year:		
Mean	0.32	7.2
Std. Dev.	0.03	0.5